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XXIV.—*New Species of Syntomidæ and Arctiadæ.*

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THE following species of Syntomidæ and Arctiadæ form a first supplement to the first three volumes of the 'Catalogue of Lepidoptera Phalænæ of the British Museum,' and the numbers before the species indicate the position of the species in the classification adopted in those volumes.

Syntomidæ.

28 a. *Ceryx pleurasticta*, sp. n.

♂. Purple-black; back of head orange; pectus with lateral orange spots; tarsi with the first joint white; abdomen with dorsal orange patch on first segment and band on fifth, the intermediate segments with lateral spots. Fore wing with hyaline spot below the cell near base; a wedge-shaped patch in end of cell and another below base of vein 2; a round spot above base of vein 2 and more elongate spots above veins 3, 4, and 6. Hind wing with hyaline patch below middle of cell and round spot above vein 2.

Hab. KANARA, Siddapah (*Davidson*), 1 ♂ type. *Exp.* 24 millim.

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30 a. *Ceryx Crawshayi*, sp. n.

Black; patagia with orange patches; abdomen with dorsal orange patch on first segment and subdorsal and lateral band on fourth segment. Fore wing with hyaline wedge-shaped patch nearly filling the cell; an elongate patch below the cell from near base to near termen and elongate spots above veins 6, 4, and 3. Hind wing hyaline, the veins and margins black; the terminal band expanding at apex and dentate inwards at vein 2.

Hab. BR. E. AFRICA, Kikuya, Roroma (*Crawshay*), 1 ♂, 2 ♀ type. *Exp.* 26 millim.

80 a. *Syntomis borguensis*, sp. n.

♂. Black; head, thorax, and abdomen shot with green; pectus with lateral orange patches; abdomen with dorsal orange patch at base and bands on third, fourth, and fifth segments, the ventral surface with segmental lines on first four segments; wings shot with purple. Fore wing with the costal area suffused with green; a hyaline white spot in end of cell, an elliptical spot below base of vein 2, and elongate spots above veins 3, 4, and 6. Hind wing with hyaline white spot at base of inner area and a round spot above vein 2.

Hab. NIGERIA, Borgu, Yelwa Lake (*Migeod*), 2 ♂ type. *Exp.* 32 millim.

80 b. *Syntomis madurensis*, sp. n.

♂. Antennæ with long branches; black-brown; frons and patagia with orange patches; hind tibia with orange streak; tarsi with the first joint orange; abdomen with orange bands on first and fifth segments and small spots on terminal segment. Fore wing with quadrate hyaline spots below base and in end of cell; an oblique spot below vein 2; spots above veins 3 and 4 and a smaller spot above 6. Hind wing with orange medial band from cell to inner margin.

Hab. S. INDIA, Madura, Ammanayanahramir (*Campbell*), 4 ♂ type. *Exp.* 22 millim.

96 a. *Syntomis melaproctis*, sp. n.

♂. Black; antennæ white at tips; frons, a ring round neck, tegulæ, and a spot on metathorax orange-yellow; pectus with lateral orange spots; abdomen with basal orange patch on dorsum, followed by six bands, the anal segment wholly black. Fore wing with wedge-shaped orange-yellow

patches below base and in end of cell; a triangular patch below base of vein 2 and elongate spots above veins 3, 4, 6. Hind wing with orange basal patch in cell and on inner area widely separated from a small spot above vein 2.

Hab. PHILIPPINES, Samboangan (*J. J. Walker*), 2 ♂ type. *Exp.* 26 millim.

96 b. *Syntomis Clementsi*, sp. n.

Black; frons, back of head, tegulæ, patagia, and a patch on metathorax deep fulvous orange; patches on pectus and stripes on fore coxæ and fore and mid femora orange; abdomen with seven orange bands in male and six in female and the extremity orange. Fore wing with subquadrate fulvous-orange spots below base and in end of cell; a wedge-shaped spot below vein 2 usually with a small spot above 2, elongate spots above veins 7 and 6, the former sometimes absent, often a small spot above 5 and shorter spots above veins 4 and 3. Hind wing with basal fulvous-orange patch in cell and on inner area conjoined to spots above veins 2 and 3.

Hab. W. AUSTRALIA, Sherlock River (*Dr. E. Clements*), 2 ♂, 4 ♀ type. *Exp.* 32-38 millim.

96 c. *Syntomis attenuata*, sp. n.

♂. Black-brown; head, tegulæ, extremity of patagia, a spot on metathorax, and lateral spots on pectus orange-yellow; abdomen with seven orange bands, the anal segment with dorsal orange spot. Fore wing with wedge-shaped orange spots below base and in end of cell; an oblique wedge-shaped spot below vein 2 and small spot above 2; elongate spots above veins 3, 4, and 6 and sometimes a slight streak above 6. Hind wing with large orange basal patch conjoined to confluent spots above veins 2 and 3.

♀. Abdomen with six bands and the anal tuft orange.

Hab. N. AUSTRALIA, S. Heywood Island, 1 ♂ type; Bathurst Island, 6 ♂, 1 ♀; Queen's Island, 1 ♀ (*J. J. Walker*). *Exp.* 26 millim.

111 a. *Syntomis consimilis*, sp. n.

Black, shot with metallic blue-green; antennæ white at tips; neck cupreous red at sides; pectus with cupreous lateral patches; fore coxæ white in front; abdomen with cupreous dorsal patch at base, conjoined lateral spots on first five segments and usually obsolescent dorsal bands on fourth and fifth segments. Fore wing with rounded or quadrate hyaline

spot below cell near base; a patch in end of cell; an oblique patch below vein 2; elongate spots above veins 6, 4, and 3, and sometimes a small spot above vein 5. Hind wing with hyaline patch in and below cell and a patch beyond the cell between veins 2 and 5.

Hab. BR. E. AFRICA, Nairobi (*Betton*), 1 ♂; Kikuyu, Roromo, 1 ♂, Fort Smith (*Crawshay*), 1 ♂, 1 ♀ type. *Exp.* 24 millim.

112 a. *Syntomis cuprizonata*, sp. n.

♀. Black, shot with metallic blue; neck with cupreous-red ring; pectus with cupreous lateral patches; abdomen with cupreous dorsal patch at base, bands on fourth, fifth, and sixth segments except on ventral surface, and lateral spots and a few scales on dorsal area on second and third segments. Fore wing with antemedial quadrate hyaline patch below the cell; a patch in end of cell; an oblique patch below base of vein 2; elongate spots above veins 6, 4, and 3, and a small spot above 5. Hind wing with elongate spot in cell, a patch below the cell, and a patch beyond it above veins 2 and 3.

Hab. BR. E. AFRICA, Roromo, Kikuyu (*Crawshay*), 1 ♀ type. *Exp.* 24 millim.

164 a. *Syntomis chloroscia*, sp. n.

♀. Head, thorax, and abdomen black, tinged with golden green; frons, tegulæ, upper edge of patagia, patches on pectus, coxæ, and femora above pale yellow; abdomen with dorsal patch on first segment, lateral band on second and complete bands on third, fourth, and fifth segments pale yellow. Fore wing blue-black, the costa and inner margin tinged with golden green; some yellow at base of inner margin; wedge-shaped hyaline spots below base and in end of cell; an elongate spot below vein 2, dilated at basal end and extending to near termen; a streak above vein 6 and short streak above 7; elongate spots above veins 3 and 5. Hind wing with hyaline patch in and below cell, extending to near tornus and tinged with yellow at base and on inner margin; a patch beyond the cell between veins 2 and 5.

Hab. BR. E. AFRICA, Athi-ya-Mawe (*Betton*), 1 ♀ type. *Exp.* 30 millim.

175 a. *Syntomis congener*, sp. n.

♀. Blue-black; antennæ white at tips; tegulæ, except at middle and sides of neck, orange; pectus with lateral orange

patches; abdomen with dorsal orange patch on first segment, lateral spots on first four segments and band on fifth segment except on ventral surface. Fore wing with rounded hyaline spot below the cell near base; a quadrate spot in end of cell; an oblique spot below base of vein 2; elongate spots above veins 6, 4, and 3. Hind wing with hyaline patch below the cell and round spot between veins 2 and 3.

Hab. BR. E. AFRICA, Kikuyu, Ruarka River, 5500 feet (*Crawshay*), 1 ♀ type. *Exp.* 36 millim.

SECT. I.—Antennæ of male with long branches.

255 a. *Tritonaclia erubescens*, sp. n.

♂. Head and thorax brown; third joint of palpi, basal joint of antennæ, streaks on femora and tibiæ, and the tarsi crimson (abdomen wanting). Fore wing with a slight crimson tinge; the costa pale rufous from middle to near apex; a round hyaline spot in end of cell; a small spot below base of vein 2, followed by a large round spot; a post-medial series of four spots between veins 7 and 3, with the two lower displaced towards termen. Hind wing pale dull crimson; a hyaline spot above base of vein 3, with a small spot above vein 4 and brownish suffusion beyond them.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 1 ♂ type. *Exp.* 36 millim.

289 a. *Metarctia flavivena*, sp. n.

♂. Head, thorax, and abdomen crimson; antennæ, tegulæ except edges, patagia, stripes on thorax, and the greater part of legs black; abdomen with slight segmental black lines, one on terminal segment more prominent, the ventral surface yellow, with black bands. Fore wing fuscous black, the veins, costa, inner margin, and cilia yellow. Hind wing yellow, with fuscous fascia on costal area; some crimson hair at base of inner margin.

♀. Abdomen with the black bands rather more prominent; hind wing with the interspaces of costal half suffused with black.

Hab. BR. E. AFRICA, Machakos (*Crawshay*), 1 ♂, 1 ♀ type; MASHONALAND, Salisbury (*Marshall*). *Exp.*, ♂ 42, ♀ 46 millim.

289 b. *Metarctia fusca*, sp. n.

♂. Dark smoky brown; antennæ with the shaft fulvous above towards base and at tips. Fore wing with pale

ochreous points below base of vein 2 and above veins 4 and 5. Hind wing somewhat paler.

Hab. BR. E. AFRICA, Kikuyu, Roromo (*Crawshay*), 1 ♂ type. *Exp.* 36 millim.

290 a. *Metarctia sarcosoma*, sp. n.

♂. Head, thorax, and abdomen flesh-pink; palpi, antennæ, a patch on thorax, tibiæ, and tarsi brown; abdomen with the ventral surface fulvous yellow, with fuscous bands. Fore wing fuscous brown, the inner margin and cilia ochreous. Hind wing ochreous.

Hab. BR. E. AFRICA, Machakos (*Crawshay*), 1 ♂ type. *Exp.* 44 millim.

292 a. *Metarctia fulvia*, sp. n.

♂. Uniform fulvous yellow; palpi, sides of frons, and fore coxæ and femora above tinged with fuscous. Fore wing with traces of discoidal spot; the interspaces below vein 5, and hind wing somewhat paler.

Hab. BR. E. AFRICA, Athi-ya-Mawe (*Betton*), 3 ♂ type. *Exp.* 36-40 millim.

292 b. *Metarctia pallida*, sp. n.

♂. Head and tegulæ brownish yellow; palpi and lower part of frons dark brown; thorax brown; abdomen and greater part of pectus and legs ochreous. Fore wing grey-brown, with slight yellowish-brown streaks on costal and inner areas. Hind wing pale ochreous.

Hab. BR. E. AFRICA, Kikuyu, Roromo, 1 ♂, Nairobi, 1 ♂ (*Crawshay*), type. *Exp.* 32-34 millim.

*307 a. *Pseudosphex rubripalpus*, sp. n.

♂. Head, thorax, and abdomen greenish black; first and second joints of palpi and fore coxæ brown-red; tarsi with the basal joint whitish; abdomen with oblique lateral white streaks on first segment, which is white below, the ventral valve edged with white. Fore wing black-brown; a short hyaline streak below base of cell; the area below the cell and vein 5 shot with brilliant purple-blue from before middle to termen. Hind wing black-brown, with short hyaline streaks below base of cell; the terminal half shot with purple-blue.

Hab. BRAZIL, Santos, S. Benitos (*Burchall*), type† ♂ in Mus. Oxon. *Exp.* 44 millim.

379 b. *Sarosa connotata*, sp. n.

♀. Head black, the frons and vertex with brilliant blue patches, base of frons and tips of antennæ white; thorax orange, the tegulæ black, with blue patches; outer side of patagia and mesothorax striped with black, metathorax with black patch; fore legs black, the tarsi orange below; mid legs black, the femora above and tarsi below orange; hind legs orange, the femora striped below with black; abdomen black, with dorsal and lateral series of blue spots, the base orange, second to fifth segments with subdorsal orange spots and the third and fourth with lateral spots. Wings hyaline, the veins and margins black, some orange on black patches at base: fore wing with black discoidal lunule conjoined to the black costal area; the terminal band expanding very widely on apical area and angled inwards at vein 2: hind wing with the terminal band expanding at apex and tornus.

Hab. PERU, R. Linimbare, St. Domingo, 4200 feet (*Sims*), 1 ♀ type. *Exp.* 56 millim.

382 a. *Sarosa lutibasis*, sp. n.

♂. Head, thorax, and abdomen deep black; frons, vertex of head, tegulæ, pectus behind, femora, and tibiæ with brilliant blue spots; hind coxa yellowish white; abdomen with yellowish-white basal patch on first segment, followed by a slender segmental line; a subdorsal series of brilliant blue spots; sublateral yellowish spots on second segment, followed by two blue spots. Wings yellowish hyaline, the veins and margins rather broadly black. Fore wing with brilliant blue spot at base; an orange streak below costa, extending to near apex; a short orange streak above vein 1, and one below it extending to middle; the terminal band expanding widely on apical area and dentate on vein 2. Hind wing with the terminal band expanding into a large patch with dentate inner edge at tornus.

Hab. PANAMA, La Chorrera (*Dolby-Tylor*), 1 ♂ type. *Exp.* 36 millim.

732 a. *Chrysocale corax*, sp. n.

♀. Head, thorax, and abdomen deep black, clothed with velvety pile; frons and vertex of head slightly tinged with blue; abdomen suffused with deep green on sides and ventral surface. Wings deep metallic blue-green.

Hab. PERU, Vilcanota (*Garlepp*), 1 ♀ type. *Exp.* 54 millim.

800 a. *Hypocladia restricta*, sp. n.

♂. Head and thorax black-brown; antennæ white at tips; vertex of head and shoulders with pairs of crimson patches; coxæ and stripes on legs white; abdomen black, with lateral crimson patch on first two segments; the ventral surface white to near extremity. Fore wing black-brown, with a purplish tinge; slight semihyaline streaks in and below middle of cell, and short streaks beyond the cell between veins 3 and 7, those between veins 3 and 5 longer. Hind wing black, with semihyaline streaks in and below cell and between bases of veins 2 to 6.

Hab. PANAMA, La Chorrera (*Dolby-Taylor*), 1 ♂ type. *Exp.* 30 millim.

*882 a. *Ceramidia chalco-viridis*, sp. n.

♂. Black; palpi with white spots at base; neck with crimson spots; head, thorax, and abdomen suffused with brown-green, the last with sublateral white fasciæ except on terminal segments. Hind wing black-brown, the costal area pale.

Hab. BRAZIL, Minas Geraes (*Birchall*), type† in Mus. Oxon. *Exp.* 42 millim.

899 a. *Napata atricineta*, sp. n.

♂. Orange; palpi mostly black; antennæ black; legs black, streaked with white; abdomen with the terminal segment and lateral stripes widening towards extremity black, the ventral surface white. Fore wing with black streaks on costa and inner margin, the latter not reaching base; a greyish-black terminal band, widening towards costa, with minutely waved inner edge and with slight white streaks on veins 2 to 8. Hind wing with the cilia black, expanding rather irregularly onto termen towards tornus.

Hab. BRAZIL, Bahia, 1 ♂ type. *Exp.* 32 millim.

912 a. *Napata albimaculata*, sp. n.

♀. Black; palpi white at base; antennæ white towards tips; back of head with two white spots; some crimson behind the eyes; pectus and coxæ with white patches; abdomen with subdorsal white patches on first segment and crimson patches on fourth, fifth, sixth, and seventh segments, the ventral surface with white patches on third and fourth segments. Fore wing with white spot beyond the cell.

Hind wing with white patch below the cell, in end, and just beyond the cell.

Hab. PANAMA, Cana Mines (*Tylecote*), 1 ♀ type. *Exp.* 42 millim.

917 a. *Napata sanguicincta*, sp. n.

Dull black; palpi except at tips, neck, and back of head crimson; frons, tegulæ, thorax, and legs with some metallic blue; abdomen brilliant blue. Fore wing with the cilia white at apex. Hind wing shot with blue; a broad terminal crimson band, with waved inner edge, expanding below vein 3.

Hab. PERU, Vilcanota (*Garlepp*), 1 ♀ type. *Exp.* 32 millim.

917 b. *Napata flaviceps*, sp. n.

♀. Black, shot brilliant blue; palpi in front and frons white; vertex of head, gulæ, and spots on shoulders bright orange; patagia edged with white; pectus and the greater part of legs white; abdomen with dorsal and lateral white lines and broad ventral stripe. Fore wing with fine white streak on subcostal nervure from base to middle; a fascia from base below the cell, widening to its extremity beyond vein 2; an oblique band beyond the cell between veins 3 and 7 with rounded ends. Hind wing brilliant blue, with hyaline fascia in and beyond cell to just beyond its extremity; the inner margin white.

Hab. PANAMA, La Chorrera (*Dolby-Tylor*), 2 ♀ type. *Exp.* 42 millim.

1005 a. *Corcura interposita*, sp. n.

♂. Fore wing with vein 5 not anastomosing with vein 6, but with bands above and below it.

Black, shot with blue; palpi orange at base; frons bluish white; neck with orange ring; patagia and thorax streaked with white; pectus orange in front; legs striped with white; abdomen with diffused white stripe. Fore wing with whitish streak in submedian fold; an oblique white band beyond the cell between veins 7 and 2, attenuate below. Hind wing shot with brilliant metallic blue; the cilia white at tips.

Hab. VENEZUELA, Porto Cabello (*Hahnel*), 1 ♂ type. *Exp.* 40 millim.

1018 a. *Uraga rubricollis*, sp. n.

♀. Fore wing with vein 7 from 8 before 9.

Fuscous black; palpi scarlet at base; frons white at sides;

neck with scarlet ring; coxæ whitish; abdomen dorsally slightly suffused with blue, the ventral surface with diffused whitish fascia. Fore wing with oblique white band from subcostal nervure across end of cell to just below vein 2. Hind wing shot with metallic blue.

Hab. COLOMBIA, 1 ♀ type. *Exp.* 40 millim.

*1033 a. *Micraga ochrea*, sp. n.

Fore wing with vein 6 from below angle of cell.

Brownish ochreous; neck orange; anal tuft yellow. Fore wing with the veins streaked with fuscous; dark points in middle of cell and on discocellulars, connected by a slight streak in discal fold; an oblique diffused line from lower angle of cell to inner margin; an obliquely curved diffused postmedial line, with dark streaks in the interspaces beyond it. Hind wing whitish, thinly scaled, the terminal area suffused with fuscous brown.

Hab. BRAZIL, Rio Grande do Sul, 1 ♂, 1 ♀ type. *Exp.* 30 millim.

*1061 a. *Delphyre aclytioides*, sp. n.

♀. Black-brown; palpi yellow at base; frons with yellow band above it; fore coxæ yellow at sides; abdomen with metallic-blue bands on terminal segments, the ventral surface with yellow bands. Fore wing with the veins pale-streaked; a postmedial orange spot on costa, with an oblique yellowish band from it to termen above tornus.

Hab. CAYENNE, type† ♀ in Mus. Oxon. *Exp.* 36 millim.

*1061 b. *Delphyre varians*, sp. n.

♀. Black-brown; abdomen with the terminal segments silvery blue and lateral and sublateral series of spots. Fore wing with oblique postmedial orange band from just below costa to vein 3, attenuate below. Hind wing semihyaline at base.

Ab. 1.—Fore wing with the band reduced to a small spot at upper angle of cell.

Hab. AMAZONS, type† ♀ in Mus. Oxon. *Exp.* 40 millim.

*1064 a. *Delphyre flaviventralis*, sp. n.

♀. Fuscous brown; palpi with the first joint orange; back of head with two orange spots; abdomen with orange ventral stripe not reaching extremity. Fore wing with oblique whitish band across end of cell from subcostal nervure to

submedian fold; an oblique postmedial band from vein 7 to 3. Hind wing black, with hyaline in, below, and beyond cell.

Hab. VENEZUELA, type† ♀ in Mus. Oxon. *Exp.* 34 millim.

1149 a. *Scepsis discopuncta*, sp. n.

♀. Pale ochreous, irrorated with black-brown; vertex of head with black streak; neck with orange ring; outer edge of patagia and vertex of thorax with blackish streaks; abdomen dorsally blackish, except at extremity. Fore wing with black streak in base of cell; an oblique antemedial striga above vein 1, continued as a slight streak above submedian fold; a point in middle of cell, with slight streak from it to discocellulars above discal fold; points in angles of cell, a point beyond upper angle, and three beyond lower angle; obscure postmedial and subterminal series of points conjoined into streaks towards apex. Hind wing semihyaline, the terminal area tinged with brown from apex to vein 1.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♀ type. *Exp.* 48 millim.

1149 b. *Scepsis subhyalina*, sp. n.

♂. Pale ochreous; head white; frons and vertex with black spots; palpi and antennæ ochreous and fuscous; metathorax with black spot; abdomen with lateral series of black points. Wings semihyaline: fore wing with very obscure diffused fuscous medial and subterminal lines; hind wing nearly white.

Hab. BOLIVIA, Tanampaya (*Garlepp*), 1 ♂ type. *Exp.* 40 millim.

1153 a. *Lycomorpha Druwei*, sp. n.

♀. Deep black. Fore wing with crimson patch from base to well beyond middle, extending from just below costa down to vein 1. Hind wing with crimson fascia on basal half of costa.

Hab. MEXICO, Durango (*Becker*), 1 ♀ type. *Exp.* 28 millim.

1157 a. *Ctenucha albipars*, sp. n.

♂. Dull black; frons, vertex of head, and metathorax with patches of brilliant blue; abdomen dorsally shot with blue, a white patch at base of ventral surface. Fore wing with medial orange-yellow band, sometimes not quite reaching costa or inner margin. Hind wing white, the terminal third

black, expanding somewhat towards costa. Underside of hind wing with bluish-fuscous patch on costa near base, followed by a yellow patch.

The two specimens examined have some grey on terminal band of hind wing, expanding into a large patch before tornus on upperside, at tornus on underside, and narrowing to a point at vein 4; this, however, does not absolutely agree in the two specimens or on both sides of the same specimen, and may be a stain.

Hab. BOLIVIA, San Jacinto, Locotal (*Garlepp*), 1 ♂ type. *Exp.* 32 millim.

1179 a. *Philoros obscurata*, sp. n.

♀. Pale ochreous, irrorated with brown; abdomen dorsally brown. Fore wing with black point in lower angle of cell; an obscure diffused brown band, very acutely angled beyond lower angle of cell and oblique towards costa and inner margin; an oblique inwardly diffused brown patch from costa before apex. Hind wing semihyaline towards base.

Hab. COLOMBIA, 1 ♀ type. *Exp.* 40 millim.

1179 b. *Philoros perirrorata*, sp. n.

♀. Ochreous, thickly irrorated with black; abdomen dorsally suffused with black except at extremity. Fore wing very thickly and evenly speckled with brown. Hind wing semihyaline except towards termen; the terminal area ochreous, irrorated and clouded with fuscous.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♀ type. *Exp.* 46 millim.

Arctiadae.

NOLINÆ.

21 a. *Celama flaviciliata*, sp. n.

♂. Head and thorax grey, mixed with brown; the genital tufts ochreous. Fore wing whitish, irrorated with brown and tinged with brown, especially towards termen; traces of an antemedial line oblique from median nervure to inner margin; a tuft of blackish scales in middle of cell; the postmedial line represented by black points on veins 7 to 3, then bent inwards to below end of cell, and diffused; traces of an irregular subterminal line; some brown marks on termen; cilia dark at base. Hind wing brown, the cilia yellow.

Hab. S. LEONE (*W. G. Clements*), 2 ♂ type. *Exp.* 14 millim.

17 a. *Celama enphæa*, sp. n.

♂. Head, thorax, and abdomen grey, irrorated with brown. Fore wing grey-brown, thickly irrorated with brown and black; faint traces of an oblique antemedial line from costa to submedian fold; the tufts of scales at middle and end of cell fuscous; the postmedial line black, minutely dentate, incurved below vein 3; a fine dark terminal line. Hind wing grey-brown, with fine dark terminal line.

Hab. W. CHINA, Moupin (*Kricheldorf*), 1 ♂ type. *Exp.* 20 millim.

39 a. *Celama socotrensis*, sp. n.

Brownish white, irrorated with brown; palpi blackish at sides; tarsi banded with black. Fore wing with distinct blackish antemedial line, angled inwards to costa and with a dark mark before it in submedian interspaces; the tufts small and dark, the tuft in cell confluent with the antemedial line; the postmedial line acutely angled outwards below costa, less acutely at veins 4 and 1, and angled inwards at discal and submedian folds, a less distinct line parallel to its inner side; the subterminal line angled outwards at vein 6 and excurved at middle. Hind wing whitish, tinged with fuscous brown.

Hab. SOKOTRA, Jena-agahan, 1 ♂ type; Adho Dimellus, 3 ♀; Hadibu plain, 1 ♀ (*Grant*). *Exp.* 14–16 millim.

Distinct from *C. pumilla*.

43 a. *Celama cretacea*, sp. n.

♀. White, tinged with reddish brown; palpi rufous at sides; tarsi banded with rufous. Fore wing with the costal edge towards base and some spots on costa rufous; the tufts of scales rufous; a fine dark antemedial line, angled outwards to the tuft in middle of cell, then sinuous; the postmedial line punctiform, bent outwards below costa, acutely angled outwards at vein 4, then strongly incurved; an indistinct irregular subterminal line, angled outwards at vein 6 and excurved at middle. Hind wing white, slightly tinged with brown towards termen.

Hab. BOMBAY, 4 ♀ type. *Exp.* 14 millim.

46 a. *Celama melaleuca*, sp. n.

♀. Silvery white; palpi black at base; legs streaked with black. Fore wing with prominent black antemedial line, slightly waved and angled outwards on subcostal and median nervures; an elliptical black medial patch on costa, with a

dentate blackish line from near its lower extremity, excurved to vein 4, then oblique, dentate and partly confluent with the postmedial line, which is prominent, black, minutely dentate, excurved from costa to vein 4, then incurved; an irregularly dentate subterminal line, bent inwards to costa, on which there is a black spot beyond it; a terminal series of rather diffused black spots. Hind wing fuscous, with indistinct discoidal spot.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 1 ♀ type. *Exp.* 26 millim.

65 a. *Nola transecta*, sp. n.

White, with a yellowish tinge; palpi black; head and tegulæ strongly irrorated with black. Fore wing with the costal and apical areas strongly suffused with red-brown and irrorated with black, the black irroration running obliquely across lower edge of apical area to middle of termen; traces of an antemedial line angled below cell; the postmedial line represented by black points on veins 6, 7; traces of a sinuous grey subterminal line on the dark area; cilia red-brown. Hind wing fuscous brown, much darker in one female; a discoidal point, distinct on underside.

Hab. S. LEONE (*W. G. Clements*), 2 ♂, 2 ♀ type. *Exp.* 18 millim.

99 a. *Pæcilonola chionobasis*, sp. n.

♂. Palpi and frons black; vertex of head and thorax pure white, the antennæ towards tips and a patch on metathorax fuscous; pectus, legs, and abdomen tinged with fuscous, tarsi ringed with white. Fore wing pure white; a large triangular black patch on middle of costa, with a few silvery scales on it, its apex extending to median nervure, its outer edge strongly indented; the terminal area fuscous black, its inner edge waved and angled inwards to cell at vein 3; an irregular subterminal series of black marks. Hind wing with the basal half white, the terminal half fuscous.

Hab. KANGRA VALLEY, 4500 feet (*Dudgeon*), 1 ♂ type. *Exp.* 14 millim.

100 a. *Pæcilonola ochritincta*, sp. n.

♂. Head, thorax, and abdomen white; palpi, antennæ, and legs fuscous. Fore wing with the basal area white, tinged with ochreous, its outer edge oblique from costa before middle to tornus; short dark streaks on and below vein 1 just beyond middle; the apical half greyish fuscous, with a

diffused whitish patch extending from apex to discocellulars; some minute white specks on apical half of costa; an obscure irregularly trisinate subterminal whitish line, with some rufous on its inner side and a tuft of black scales below vein 3. Hind wing white, tinged with fuscous.

Hab. CEYLON, Haputale (*Mackwood*), 1 ♂ type. *Exp.* 16 millim.

LITHOSIANÆ.

166 a. *Pelosia albicostata*, sp. n.

♂. Grey-brown or fuscous brown; vertex of head, legs, extremity and ventral surface of abdomen ochreous white. Fore wing with narrow ochreous-white costal fascia; cilia of both wings ochreous white.

Hab. JAPAN (*Pryer*), 2 ♂ type. *Exp.* 20–26 millim.

231 a. *Phryganopsis flavicosta*, sp. n.

♀. Head, thorax, and abdomen orange; fore tibiæ at extremity and tarsi above tinged with fuscous; metathorax whitish. Fore wing dull yellowish white, with narrow yellow costal fascia; the termen and cilia tinged with orange. Hind wing pale yellow.

Hab. S. LEONE (*Austen*), 1 ♀ type. *Exp.* 30 millim.

232 a. *Phryganopsis straminea*, sp. n.

♀. Straw-yellow; abdomen brownish grey, with the anal tuft ochreous. Fore wing slightly irrorated with brown. Hind wing pale yellow.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 1 ♀ type. *Exp.* 24 millim.

232 b. *Phryganopsis ochreatea*, sp. n.

♀. Head and thorax ochreous; abdomen grey, the extremity orange. Fore wing brownish ochreous, the costa and termen tinged with orange. Hind wing grey-brown.

Hab. NYASALAND, Chiromo (*De Jersey*), 1 ♀ type. *Exp.* 20 millim.

251 a. *Macrosia chalybeata*, sp. n.

♀. Head and tegulæ at base orange; thorax blue-grey, with orange patch on metathorax; pectus and legs orange, the mid and hind femora above fuscous; abdomen orange,

dorsally greyish towards base. Fore wing steely blue-grey, the costa and cilia orange. Hind wing orange.

Ab. 1.—Fore wing with the termen yellow. Salisbury.

Hab. BR. E. AFRICA, Eb Urru (*Betton*), 3 ♀ type; MASHONALAND, Salisbury (*Marshall*), 1 ♀. *Exp.* 42 millim.

251 *b.* *Macrosia polioplaga*, sp. n.

♂. Fore wing with vein 6 from below angle of cell, 7, 8, 9 stalked; 10, 11 from cell.

Head, thorax, and abdomen red-brown. Fore wing bright red-brown; a grey triangular patch from cell before middle to discocellulars, where it extends from upper angle of cell to vein 1, a fuscous point on its lower edge near its base just below median nervure, and a discoidal lunule. Hind wing very ample, yellowish brown, the disk rather redder brown, and with some long hairs on upperside in the cell.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 1 ♂ type. *Exp.* 44 millim.

252 *a.* *Otenosia albiceps*, sp. n.

♀. Fore wing with vein 10 from before 7.

Deep red-brown; upper part of frons and vertex of head pure white; fore legs with the extremity of tibia and rings on first two tarsal joints white; mid tibiæ and first two tarsal joints white; anal tuft whitish. Fore wing with erect white antemedial line; a postmedial white line, slightly angled at vein 6 and oblique towards costa. Hind wing bright rufous.

Hab. BATIAN, Mt. Sibela, 3000 feet (*Doherty*), 1 ♀ type. *Exp.* 20 millim.

289 *a.* *Ilema punctilineata*, sp. n.

Head and thorax pale red-brown; abdomen pale ochreous, the extremity and ventral surface tinged with rufous. Fore wing red-brown; the basal and terminal areas with darker irroration; an indistinct dark medial line, slightly angled at discocellulars, then oblique, and with black points on it in end of cell and submedian fold. Hind wing pale ochreous yellow.

Ab. 1.—Fore wing with the black points obsolete.

Fore wing with vein 6 shortly stalked with 7, 8, 9, or from cell; 11 anastomosing with 12.

Hab. BR. E. AFRICA, Masailand, E. Quaso (*Betton*), 3 ♀; Uganda Ry., mile 478 (*Betton*), 2 ♂, 3 ♀ type. *Exp.* 38–40 millim.

291 a. *Ilema peperita*, sp. n.

♀. Head and thorax grey, tinged with brown and irrorated with black; abdomen brownish grey. Fore wing brownish grey, strongly irrorated with black; a very indistinct post-medial line, excurved from below costa to vein 6, then very oblique, and with a black point on it in submedian fold and obscure spot on inner margin. Hind wing brownish white slightly irrorated with fuscous.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 11 anastomosing with 12.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 1 ♀ type; Nakuro, 1 ♀. *Exp.* 34 millim.

304 a. *Ilema distigmata*, sp. n.

♀. Ochreous yellow; fore legs with the extremity of femora and the tibiæ above fuscous. Fore wing with black spot in end of cell, and another rather nearer base in submedian fold. Hind wing paler.

The W.-African specimen is shorter-winged than the one from E. Africa.

Fore wing with vein 6 shortly stalked with 7, 8, 9; 11 anastomosing with 12.

Hab. OLD CALABAR (*Sampson*), 1 ♀ type; BR. E. AFRICA, Kikuyu, Nairobi Plains (*Betton*), 1 ♀. *Exp.* 32-38 millim.

310 a. *Ilema creatoplaga*, sp. n.

♂. Head and thorax red-brown; palpi, frons, and tibiæ tinged with fuscous; abdomen grey, the hair on sides and the anal tufts fulvous. Fore wing red-brown, tinged with fuscous except on inner area and a postmedial patch on costal area; a pale yellow-brown oblong patch occupying the terminal half of cell and extending to submedian fold. Hind wing pale brownish ochreous.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 11 slightly anastomosing with 12.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 1 ♂ type. *Exp.* 38 millim.

322 a. *Ilema sanguicosta*, sp. n.

♂. Head and tegulæ scarlet; palpi with the third joint fuscous; antennæ ochreous, black at extremity; thorax brown, with scarlet patch on metathorax; legs scarlet, with brown stripes above and the tarsi brown; abdomen brown, with the last two segments and ventral surface orange. Fore

wing fuscous brown; the costal edge scarlet, with a yellowish fascia below it, expanding on apical area; cilia yellow. Hind wing pale yellow, the costal half fuscous brown, leaving the termen yellow.

♀. Abdomen pale brownish instead of fuscous brown. Hind wing wholly yellow. Fore wing with vein 6 from angle of cell; 9 from 10 anastomosing with 8 to form the areole; 11 anastomosing with 12.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 2 ♂ type; MASHONALAND, Salisbury (*Marshall*), 1 ♀. *Exp.*, ♂ 46, ♀ 36 millim.

340 a. *Ilema phæocraspis*, sp. n.

♀. Head and thorax pure white; palpi, frons, and antennæ brown, tinged with fuscous; pectus and legs pale brown, the latter tinged with fuscous above; abdomen pale reddish brown. Fore wing pure white; the costal edge pale reddish brown, black towards base. Hind wing brownish yellow. Underside tinged with brown, some yellow-brown on costal area of both wings.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 11 anastomosing with 12.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 4 ♀ type; Masailand, Quaso, 1 ♀. *Exp.* 34-38 millim.

346 a. *Ilema leia*, sp. n.

♂. Pale grey-brown; abdomen yellowish at extremity. Hind wing whitish, the costal area pale grey-brown.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 11 anastomosing with 12.

Hab. BR. E. AFRICA, Uganda Ry., mile 478 (*Betton*), 1 ♂ type. *Exp.* 24 millim.

441 a. *Agylla holochrea*, sp. n.

Pale ochreous yellow; palpi at tips, antennæ, stripes on femora, the tibiæ and tarsi fuscous. Underside of fore wing suffused with fuscous except marginal areas.

Hab. W. CHINA, Chang Yang (*Pratt*), 1 ♂, 2 ♀ type. *Exp.*, ♂ 42, ♀ 48 millim.

441 b. *Agylla complanodes*, sp. n.

♀. Head and tegulæ orange-yellow; thorax grey; pectus, legs, and abdomen orange-yellow. Fore wing grey, with

narrow orange-yellow fasciæ on costa and inner margin. Hind wing orange-yellow.

Hab. BR. C. AFRICA, L. Nyasa (*De Jersey*), 1 ♀ type. *Exp.* 32 millim.

542 a. *Stictane junctilinea*, sp. n.

♀. White; head, thorax, and abdomen tinged with grey-brown. Fore wing irrorated with grey-brown; a slight dark streak on base of costa; a subbasal black point in cell; the medial line excurved, connected from vein 2 to inner margin by a dark shade with the postmedial line, which is oblique from costa to submedian fold, then outwardly oblique; subterminal points on veins 6, 4, 3, 2, 1, the two latter conjoined. Hind wing tinged with brown.

Hab. SINGAPORE (*Ridley*), 1 ♀ type. *Exp.* 18 millim.

Genus MICROTANE, nov.

. Type *M. fusca*.

Proboscis absent; palpi porrect, slender, not reaching beyond the frons; antennæ of male ciliated; tibiæ with the spurs long. Fore wing with the apex rounded; vein 3 from before angle of cell; 4, 5 stalked; 6 from upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 from cell. Hind wing with vein 2 from towards angle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

541 a. *Microtane fusca*, sp. n.

♂. Fuscous brown; abdomen blackish, the anal tuft ochreous. Fore wing irrorated with black; the costal area blackish towards base; small black spots in middle and end of cell and beyond its extremity; a blackish patch on costa just beyond middle and another before apex; a terminal series of black points. Hind wing fuscous, with indistinct discoidal spot.

Hab. CEYLON, Matelé (*Pole*), 1 ♂ type. *Exp.* 12 millim.

Genus CYCLOSODES, nov.

Proboscis fully developed; palpi slender, oblique, extending to just beyond frons; antennæ of female ciliated; tibiæ with the spurs long; anal tuft of female large. Fore wing short, broad, the costa strongly arched, the apex rounded; vein 2 curved at origin; 3 from before angle; 4, 5 strongly stalked; 6, 7 strongly stalked; 8, 9 absent; 10, 11

from cell, free. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 strongly stalked; 8 from middle of cell.

551 a. *Cyclosodes flavicostata*, sp. n.

♀. Head fuscous brown; tegulæ and patagia ochreous; thorax brown; abdomen fuscous, the anal tuft pale. Fore wing silky red-brown, the costa and cilia ochreous yellow. Hind wing fuscous brown.

Hab. BORNEO, Kuching (*Shelford*), 1 ♀ type. *Exp.* 20 millim.

708 a. *Meteuhoa melanoleuca*, sp. n.

♂. Palpi not reaching vertex of head; black; head, tegulæ, patagia, fore and mid legs irrorated with white scales. Fore wing with white antemedial band very broad at inner margin, narrowing to costa; a white subapical spot. Hind wing with white band extending from near base to beyond middle and not reaching inner margin.

Hab. N. GUINEA, Milne Bay (*Meek*), 1 ♂ type. *Exp.* 22 millim.

744 a. *Odozana leucota*, sp. n.

♀. White; head, thorax, and abdomen slightly tinged with fulvous. Fore wing with scale-tooth at tornus; the greater part of wing tinged with fulvous; an indistinct dark antemedial line, bent inwards to costa and angled outwards on the veins; a black point at lower angle of cell; the post-medial line strongly bent outwards beyond the cell and angled on veins 6 and 4, with diffused conjoined fulvous spots beyond it between vein 6 and inner margin; the termen and cilia with fuscous spots. Hind wing fuscous, the cilia white except towards tornus.

Hab. PANAMA, Cana Mines (*Tylecote*), 1 ♀ type. *Exp.* 18 millim.

898 a. *Gymnasura taprobana*, sp. n.

Fore wing with vein 11 free; male with a small post-medial tuft of scales below costa.

♂. Ochreous; abdomen whitish above except anal tuft. Fore wing with a fuscous subbasal spot on costa; an ill-defined antemedial line, excurved below costa and not reaching inner margin; an oblique medial line, diffused inwards to the antemedial line at middle, and slightly angled inwards in submedian fold; two points on discocellulars;

postmedial, subterminal, and terminal series of points. Hind wing thinly scaled, the subcostal area tinged with fuscous; faint traces of a diffused medial line; a discoidal spot; the termen tinged with fuscous.

Hab. CEYLON, Matelé (*Pole*), 1 ♂ type. *Exp.* 18 millim.

1167 a. *Eugoa bilineata*, sp. n.

♂. Ochreous; head, thorax, and abdomen irrorated with brown; palpi and antennæ tinged with brown. Fore wing slightly irrorated with brown; a strongly curved antemedial line, expanding into a spot on costa; an elongate black point in end of cell; the postmedial line excurved beyond the cell and expanding into a spot on costa; subterminal streaks below veins 10, 8, and 4, and an oblique streak from postmedial line at vein 3 to tornus. Hind wing yellower.

Hab. SINGAPORE (*Ridley*), 1 ♂ type. *Exp.* 16 millim.

ARCTIANÆ.

1852 a. *Hyphantria strigulosa*, sp. n.

♂. Head and thorax white, tinged with yellow; palpi black, the basal joint orange; antennæ black, with some white scales on shaft above; tegulæ edged with orange; patagia with slight black streaks; femora orange above; fore tibiæ streaked with black, the tarsi banded with black; abdomen orange, with dorsal and lateral black points on terminal segments, the anal tuft and ventral surface ochreous white. Fore wing ochreous white, the costal edge orange; a black streak in base of cell; subbasal streaks below costa and above and below vein 1; an antemedial streak below the cell and a spot above vein 1; two slight medial streaks in cell; points in and beyond upper angle of cell; a postmedial series of diffused irregular spots, interrupted in places and incurved below vein 3; a subterminal series of short streaks on each side of veins 7 to 3 bent outwards to apex, points further from base above and below vein 2, and a point above vein 1 near tornus; a terminal series of points in the interspaces. Hind wing ochreous white; a black discoidal spot and slight streak on apical part of termen.

Hab. NATAL, 1 ♂ type. *Exp.* 40 millim.

1860 a. *Estigmene gynephæa*, sp. n.

♂. Head orange; palpi and antennæ blackish; thorax pale yellow; pectus and legs grey, the latter with the femora

orange above; abdomen orange, with dorsal and lateral series of black spots except on first segment, the ventral surface grey-white. Fore wing yellow, the veins finely streaked with black except on costal area. Hind wing pale yellow.

♀. Head and thorax deep orange; pectus, legs, and ventral surface of abdomen fuscous. Fore wing orange-brown, the costal area to beyond middle, the inner margin finely, and the cilia orange; a black point at lower angle of cell. Hind wing fuscous black; a diffused orange streak on median nervure; the inner margin and cilia orange; an orange discoidal point: the underside orange, with large fuscous patch on terminal area from costa to vein 2.

Hab. MASHONALAND, Salisbury (*Marshall*), 2 ♂, 1 ♀ type. *Exp.*, ♂ 36, ♀ 38 millim.

XXV.—*On the Presence of a Superbranchial Organ in the Cyprinoid Fish Hypophthalmichthys.* By G. A. BOULENGER, F.R.S.

SINCE the discovery by Ehrenberg and by Rüppell of the singular accessory branchial organ known as the "gill-snail"*, whence the Nile fish *Heterotis* derives its name, more or less similar structures have been described in various other Malacopterygians and in some Ostariophysi of the family Characinidæ †. No examples of anything of the sort have yet been furnished by the Cyprinidæ, so closely related to the Characinidæ; but this is no doubt due to the little attention that has been paid to the anatomy of the exotic genera of this large family. I am now able to fill up this gap in our knowledge by pointing out the presence of a superbranchial organ in the curious Chinese genus *Hypophthalmichthys*, Bleeker ‡, which is thus added to the list of fishes provided with this problematic structure.

Although several descriptions of *Hypophthalmichthys* have been given, I do not find any allusion to the organ in question, which can only be seen by a removal of the membrane of the branchial chamber; otherwise it only appears as a thick protuberance on each side of the pharynx, filling up the space left by the gill-arches, with folds fitting between every two

* Hyrtl, Denkschr. Ak. Wien, viii. 1854, p. 85; Hemprich & Ehrenberg, Symb. Phys., Zoot. pl. ix.

† Hyrtl, Denkschr. Ak. Wien, xxi. 1863, p. 7; Sagemehl, Morphol. Jahrb. xii. 1887, p. 307.

‡ For a synopsis of the eight species known, cf. Herzenstein & Warpachowski, Trud. St. Petersburg. Nat. xviii. 1887, p. 40.